

**In the claims:**

118. (Currently Amended) A local area network comprising:

a LAN switch;

a plurality of local area network nodes;

a power supply subsystem comprising at least one of a voltage sensor and a current sensor;

a power management and control unit; and

communication cabling connecting said plurality of nodes to said power supply subsystem and to said LAN switch, said communication cabling providing data communication between said LAN switch and said plurality of local area network nodes;

said power supply subsystem being operative ~~operable~~ under control of said power management and control unit to:

provide at least some power via the communication cabling to said plurality of local area network nodes; ~~and~~

monitor via said at least one of a voltage sensor and a current sensor at least one of the power consumption of, and the current flow to, each of said plurality of local area network nodes; and

classify, responsive to said monitored at least one of the power consumption and the current flow, each of said plurality of local area network nodes for which said at least some power is provided via the communication cabling as alternatively one of over-current, under current and normal.

119. (Previously Presented) A local area network according to claim 118, further comprising a management workstation in communication with said power management and control unit.

120. (Previously Presented) A local area network according to claim 119, wherein said power management and control unit is governed by an operation of said management workstation.

121. (Currently Amended) A local area network according to claim 119, wherein said power management and control unit is further operative ~~operable~~ to report said classification for each local area network node of said plurality of local area network nodes for which at least some power is provided ~~a status of at least one of said local area network node and said communication cabling~~, to said management workstation.

122. (Currently Amended) A local area network according to claim 118, wherein in the event as a consequence of said monitored power consumption, said power management and control unit classifies one of said plurality of local area network nodes for which at least some power is provided via the communication cabling as under current, said power management and control unit is further operative to terminate said provided power to said under current one of said plurality of local area network nodes ~~a condition of each of said plurality of local area network nodes as being in one of over-current, under-current and normal condition~~.

123. (Currently Amended) A local area network according to claim 122, wherein said termination of said provided power is within a predetermined time of said classification of said one of said plurality of local area network nodes as under current ~~further comprising a management workstation in communication with said power management and control unit, said power management and control unit reporting said classification of each of said plurality of local area network nodes to said management workstation~~.

124. (Currently Amended) A local area network according to claim 118, wherein said power management and control unit is further operative to:

monitor ~~classifies~~ a total of the current flow to power consumption of said plurality of local area network nodes provided at least some power via the communication cabling; and

classify said monitored total current flow as being alternatively ~~in~~ one of over-current and normal-condition.

125. (Currently Amended) A local area network according to claim 124, further comprising a management workstation in communication with said power management and control unit, said power management and control unit being operative to report ~~reporting~~ said over-current or normal classification of said monitored total current flow to said management workstation.

126. (Currently Amended) A local area network according to claim 118, wherein at least one of said plurality of local area network nodes is selectably operable ~~operative~~ in one of a full functionality mode and a partial functionality mode, said one of said full functionality mode and said partial functionality mode being selected responsive to said management and control unit ~~operating said at least one of said plurality of local area network nodes in one of said full functionality mode and said partial functionality mode.~~

127. (Currently Amended) A local area network according to claim 126, wherein said management and control unit is ~~operable~~ operative to communicate, via said LAN switch, with said at least one of said plurality of local area network nodes, said ~~operating~~ selection of said one of said full functionality mode and said partial functionality mode ~~being as a result of~~ responsive to said communication.

128. (Previously Presented) A local area network according to claim 118, wherein said power supply subsystem and said LAN switch are located within a single hub.

129. (Previously Presented) A local area network according to claim 118, wherein said communication cabling connects said LAN switch to said plurality of nodes via said power supply subsystem.

130. (Currently Amended) A power supply subsystem for supplying power to at least one local area network node over communication cabling, said power supply subsystem comprising:  
at least one of a voltage sensor and a current sensor; and  
a power management and control unit,

said power management and control unit being operative ~~operable~~ to:

provide at least some power via the communication cabling to the at least one local area network node; ~~and~~

monitor via said one of a voltage sensor and a current sensor at least one of the power consumption of, and the current flow to, the at least one local area network node; and

classify, responsive to said monitored at least one of the power consumption and the current flow, the at least one network node for which said at least some power is provided via the communication cabling as alternatively one of over-current, under current and normal.

131. (Cancelled).

132. (Currently Amended) A power supply subsystem according to claim 130 ~~claim 131~~, wherein said power management and control unit is further ~~operable~~ operative to report said classification to a management workstation.

133. (Currently Amended) A power supply subsystem according to claim 130, wherein said at least one local area network node comprises a plurality of local area network nodes, and wherein said power management and control unit is further operative to:

monitor ~~classifying the condition of~~ a total of the current flow to power consumption of said plurality of said local area network nodes; and

classify said monitored total current flow as being in alternatively one of over-current and normal ~~condition~~.

134. (Currently Amended) A power supply subsystem according to claim 133, wherein said power management and control unit is further ~~operable~~ operative to communicate said over-current or normal classification to a management workstation.

135. (Cancelled)

136. (Currently Amended) A power supply subsystem according to claim 130, wherein said power management and control unit is further ~~operable~~ operative to interrogate the at least one network node to determine if the at least one network node has characteristics allowing the at least one network node to receive power over the communication cabling, and wherein said power management and control unit is further operative to report a status of said interrogation of said at least one network node to a management workstation.

137. (Cancelled)

138. (Currently Amended) A method of supplying power to at least one network node over communication cabling, the method comprising: ~~comprising;~~  
~~interrogating at least one network node to determine whether~~  
~~characteristics of the at least one network node allow it to receive power over the communication~~  
~~cabling;~~  
providing power to the said at least one network node over said communication cabling;  
monitoring at least one of power consumption of, and current flow to, said at least one network node for which said power is provided; and  
classifying, responsive to said monitoring, the at least one network node for which said power is provided as alternatively one of over-current, under current and normal.

139. (Currently Amended) A method according to claim 138, further comprising  
reporting said classification of the at least one network node for which  
said power is provided ~~monitored at least one of power consumption and current flow~~ to a management workstation.

140. (New) A method according to claim 138, further comprising:

in the event the at least one network node is classified as over current,  
terminating said provided power to said over current at least one network node.

141. (New) A method according to claim 140, further comprising:

providing a plurality of programmably adjustable thresholds for said over  
current classification,

wherein said over current classification exhibits a plurality of sub-  
classification, each of said over current sub-classifications being associated with a particular one  
of said provided plurality of programmably adjustable thresholds which is exceeded.

142. (New) A method according to claim 141, wherein said terminating of said provided  
power is within a predetermined time of said classification of the at least one network node as  
over current, and wherein said predetermined time is a function of said particular one of said  
provided plurality of programmably adjustable thresholds which is exceeded.

143. (New) A method according to claim 138, further comprising:

in the event the at least one network node is classified as under current,  
terminating said provided power to said under current at least one network node.

144. (New) A method according to claim 138, further comprising:

in the event the at least one network node is classified as under current,  
terminating said provided power to said under current at least one network node within a  
predetermined time of said classification of said at least one network node as under current.

145. (New) A method according to claim 138, wherein the at least one network node  
comprises a plurality of network nodes, the method further comprising:

monitoring a total of the current flow to said plurality of network nodes;  
and

classifying said monitored total current flow as being alternatively one of over-current and normal.

146. (New) A method according to claim 145, further comprising:  
reporting said classification of said total current flow to a management workstation

147. (New) A method according to claim 145, further comprising:  
providing a plurality of programmably adjustable thresholds for said total current flow over current classification,  
wherein said total current flow over current classification exhibits a plurality of sub-classification, each of said total current flow over current sub-classifications being associated with a particular one of said provided plurality of programmably adjustable thresholds which is exceeded

148. (New) A local area network according to claim 118, wherein in the event said power management and control unit classifies one of said plurality of local area network nodes for which at least some power is provided via the communication cabling as over current, said power management and control unit is further operative to terminate said provided power to said over current one of said plurality of local area network nodes.

149. (New) A local area network according to claim 148, wherein said over current classification exhibits a plurality of sub-classifications, each of said over current sub-classification being associated with a particular one of a plurality of programmably adjustable thresholds which is exceeded.

150. (New) A local area network according to claim 149, wherein said termination of said provided power is within a predetermined time of said classification of said one of said plurality

of local area network nodes as over current, and wherein said predetermined time is a function of said particular one of said plurality of programmably adjustable thresholds which is exceeded.

151. (New) A local area network according to claim 124, wherein said over current classification of said monitored total current flow exhibits a plurality of sub-classifications, each of said over current sub-classifications of said monitored total current flow being associated with a particular one of a plurality of programmably adjustable thresholds which is exceeded.

152. (New) A power supply subsystem according to claim 130, wherein in the event said power management and control unit classifies one of the at least one local area network nodes for which at least some power is provided via the communication cabling as under current, said power management and control unit is further operative to terminate said provided power to said under current at least one local area network node.

153. (New) A power supply subsystem according to claim 152, wherein said termination of said provided power is within a predetermined time of said classification of said at least one local area network node as under current.

154. (New) A power supply subsystem according to claim 130, wherein in the event said power management and control unit classifies the at least one network node for which at least some power is provided via the communication cabling as over current, said power management and control unit is further operative to terminate said provided power to said over current at least one network node.

155. (New) A power supply subsystem according to claim 154, wherein said over current classification exhibits a plurality of sub-classifications, each of said over current sub-classification being associated with a particular one of a plurality of programmably adjustable thresholds which is exceeded.



156. (New) A power supply subsystem according to claim 155, wherein said termination of said provided power is within a predetermined time of said classification of said one of said plurality of local area network nodes as over current, and wherein said predetermined time is a function of said particular one of said plurality of programmably adjustable thresholds which is exceeded.

157. (New) A power supply subsystem according to claim 133, wherein said over current classification of said monitored total current flow exhibits a plurality of sub-classifications, each of said over current sub-classifications of said monitored total current flow being associated with a particular one of a plurality of programmably adjustable thresholds which is exceeded.